

### REMARKS/ARGUMENTS

In regards to the Office action mailed October 16, 2007, claims 1, 10, 11, 20, 21 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton. Claims 2-8, 12-18 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton in view of Myers. Claims 9, 19 and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton. These rejections are respectfully traversed.

Hamilton fails to anticipate claims 1, 10, 11, 20, 21 and 24 under 35 U.S.C. 102(b), as it fails to disclose each element of the claimed invention. Consider claim 1, which includes a transcoder for converting a received first digital signal with a first modulation and encoding scheme to a second signal with a second modulation and encoding scheme, the transcoder comprising a demodulator that produces a demodulated digital stream of data from the received first digital signal, a modulator in signal communication with the demodulator, where the modulator modulates the demodulated digital stream of data with the second modulation and encoding scheme and produces a new modulated digital stream of data. The Examiner relies on QPSK demodulator 62, FEC decoder 63 and decrypter 65 of Hamilton as allegedly disclosing the claimed demodulator, and encrypter 74, re-multiplexer 76, FEC encoder 78 and modulator 80 of Hamilton as allegedly disclosing the claimed modulator, but it is clear from Hamilton that the components relied on by the Examiner do not produce a demodulated digital stream of data from the received first digital signal (with a first modulation and encoding scheme ) and modulate the demodulated digital stream of data with a second modulation and encoding scheme and produces a new modulated digital stream of data. Instead, Hamilton discloses at col. 5, lines 25-29 that in “accordance with an important feature of the present invention, the decrypted digital signals 24 are reencrypted prior to retransmission from the headend 40 and *preferably without changing the underlying format of the signal*, e.g. from digital to analog.” (Emphasis added). Thus, while Hamilton provides *encryption* of the signal, the modulation and encoding scheme remains unchanged. Indeed, the term “encoding” is not even used in Hamilton, so it is difficult to understand how Hamilton could disclose a first and second encoding scheme when encoding schemes are not even discussed in Hamilton.

Likewise, in regards to claims 10, 20 and 24, Hamilton fails to disclose that the second modulation and encoding scheme is QPSK. In fact, Hamilton discloses that modulator 80 can comprise a QAM modulator (col. 5, line 49), but fails to disclose that it is a QPSK modulator.

Claim 11 includes elements that are drafted in means plus function format to invoke the provisions of 35 U.S.C. 112(6), and the Examiner has failed to identify what structure in Hamilton allegedly corresponds to the structure disclosed in the specification. By way of example and not by limitation, see, e.g., Figs. 3-5 and 7 of the pending application. Hamilton utterly fails to disclose any structure that is identical to or an equivalent of the structures corresponding to the claimed means plus function elements of claim 11.

In regards to claim 21, the Examiner relies on the transmitted digital signal 24 of Hamilton as allegedly disclosing the first digital signal, but claim 21, as amended, includes demodulating a received signal having a received modulation and encoding scheme to generate the first digital signal and modulating the demodulated first digital signal with the second modulation and encoding scheme, wherein the modulating produces a new modulated digital signal. As such, the transmitted signal of Hamilton can not be the first digital signal of claim 21.

In regards to the rejection of claims 2-8, 12-18 and 22 under 35 U.S.C. 103(a) as being unpatentable over Hamilton in view of Myers, Hamilton on view of Myers fails to provide a prima facie basis for the rejection of claims 2-8, 12-18 and 22 because they fail to disclose each element of the claimed invention. Consider claim 2, which includes the transcoder of claim 1, wherein the upconverter includes: an upsampler that receives the new modulated digital stream of data from the modulator and produces an upsampled signal; a complex mixer in signal communication with the upsampler, where the complex mixer is capable of producing an intermediate frequency ("IF") digital signal by upconverting the upsampled signal with an IF carrier signal; and a combiner in signal communication with the complex mixer, where the combiner is capable of producing the second digital signal having sampling replicas from the IF digital signal. The Examiner acknowledges that Hamilton fails to disclose these claim elements, but asserts that they are disclosed by Myers, citing to mixers 34, 36, 40 and 42, but Myers fails to disclose a complex mixer in signal communication with the upsampler, where the complex mixer is capable of producing an intermediate frequency ("IF") digital signal by upconverting the upsampled signal with an IF carrier signal. Mixers 40 and 42 of Myers receive signals from a 21.4 MHz generator and a 34.8 kHz generator, and do not receive any upsampled signals whatsoever. In fact, the term "complex mixer" is not even used in Myers. Myers also fails to disclose a combiner in signal communication with the complex mixer, where the combiner is

capable of producing the second digital signal having sampling replicas from the IF digital signal. The terms “replica,” “replicas,” and “sampling replicas” are not even used in Myers.

Likewise, in regards to claim 3, Myers fails to disclose that the second digital signal may include multiple in-phase and quadrature-phase modulated image replicas. As noted above, image replicas are simply not disclosed by Myers, and the Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 4, Myers fails to disclose a clock signal is input into both the upsampler and a digital-to-analog converter (“DAC”) in signal communication with the combiner. The only DAC disclosed in Myers, DAC 39, receives only a single signal input and no clock signal input. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 5, Myers fails to disclose a complex mixer, much less a complex mixer that is connected to a numerically controlled oscillator that produces the IF carrier signal. Indeed, the terms “numerical,” “numerically” and “numerically controlled oscillator” are not even used in Myers. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 6, Myers fails to disclose that the IF carrier signal is at a lower frequency than the clock signal. In fact, the term “clock” is not even used in Myers, and it is not clear that Myers even discloses a clock signal. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 7, Myers fails to disclose a numerically controlled oscillator, as noted, much less that a numerically controlled oscillator is an internal component of the transcoder. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 8, Myers fails to disclose a numerically controlled oscillator, as noted, much less that a numerically controlled oscillator is an external component of the transcoder. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claims 12 through 18, these claims include means plus function limitations which have not even been properly addressed by the Examiner, and it is further noted that neither

Hamilton or Myers discloses the corresponding structure or an equivalent thereof of the relevant means plus function limitations.

In regards to claim 22, Myers fails to disclose upsampling the new modulated digital signal; mixing the upsampled new modulated digital signal with an intermediate frequency (“IF”) carrier signal to produce an IF digital signal; and sampling the IF digital signal through a mixer to produce the second digital signal. There is nothing in Myers that remotely suggests that a second digital data signal is generated, and the output of 32 of Myers is directly converted to an analog signal. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to the rejection of claims 9, 19 and 23 under 35 U.S.C. 103(a) as being unpatentable over Hamilton, the Examiner admits that Hamilton fails to disclose each element of the claimed invention, and as such, Hamilton fails to provide a prima facie basis for the rejection of these claims. As shown, Hamilton explicitly fails to disclose the limitations of claims 10, 20 and 24, and also fails to support an argument that it would be obvious to modify the system of Hamilton, as Hamilton states that the “modulator 54 may be any suitable satellite modulator,” and it is not clear from Hamilton that 8-PSK Turbo Coding would be a suitable satellite modulator, much less that the use of 8-PSK Turbo Coding as a suitable satellite modulator is prior art.

Premises considered, withdrawal of all claim rejections and allowance of all pending claims is respectfully requested.

### CONCLUSION

In view of the foregoing remarks and for various other reasons readily apparent, Applicants submit that all of the claims now present are allowable, and withdrawal of the rejection and a Notice of Allowance are courteously solicited.

If any impediment to the allowance of the claims remains after consideration of this amendment, a telephone interview with the Examiner is hereby requested by the undersigned at (214) 953-5990 so that such issues may be resolved as expeditiously as possible.

A response to the Office action mailed October 16, 2007 within the one month extension period was due February 16, which fell on a Saturday. As such, this response is timely filed on Tuesday, February 19, 2008 (Monday, February 18, 2008 being Presidents' Day and a National Holiday). A Petition for 1-Month Extension of Time is enclosed. The Commissioner is hereby authorized to charge any fee or credit any refund to Deposit Account No. 50-0835 in the name of Conexant Systems, Inc.

Dated: February 19, 2008

Respectfully submitted,

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